

CONTRACT

SPECIAL PROVISIONS

CSI-Inch/Pound

Project No: SP-0134(3)0

Name: SR-134; FROM SR-37 TO SR-126 HMA OVERLAY

PAVEMENT PRESERVATION

County: WEBER

Bid Opening: August 12, 2003

Date



Table of Contents

Project #SP-0134(3)0

- I. Statement of 2002 Standard Specifications for Road and Bridge Construction applicability
- II. List of Revised Standard Specifications
- III. List of Revised Standard Drawings
- IV. Materials Minimum Sampling and Testing
- V. Notice to Contractors
- VI. Equal Opportunity (State Projects)
- VII. Bidding Schedule
- VIII. Measurement and Payment
- IX. PDBS Project Summary Report
- X. PDBS Detailed Stationing Summaries Report
- XI. Location Map
- XII. Typical Sections or Detail Sheets
- XIII. Standard Drawing Index
- XIV. Special Provisions
 - 1. Section 00725M Scope of Work
 - 2. Section 01892M Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes
 - 3. Section 02721M Untreated Base Course
 - 4. Section 02742S Project Specific Surfacing Requirements
 - 5. Section 02765S Pavement Marking Paint

I. 2002 Standard Specifications

The State of Utah Standard Specifications for Road and Bridge Construction, U.S. Standard Units (Inch Pound Units) CSI Format, Edition of 2002 with Changes One and Two included applies on this project as a static Specification Book.

Refer to Part II (List of Revised Standard Specifications) and Part XIV (Special Provisions) for other project specific specifications.

II. List of Revised Standard Specifications

Change One – Included in 2002 Standard Specifications

Revised August 29, 2002

Section 00570 Articles 1.2 A 69, A 71 b (deleted)
Section 00727 Articles 1.1 D; 1.5 B; 1.9; 1.10; 1.16 B, C; 1.18 B
Section 01574 Articles 1.2 B
Section 02721 Articles 1.2 D (added), H (replaced), I (deleted); 1.6 B1; 2.1 A Table 3;
3.2 C
Section 02741 Articles 3.8 E 2 a, b
Section 02821 Articles 3.1 A
Section 02892 Articles 1.5 A, B
Section 02936 Articles 1.4; 1.5 C
Section 03152 Articles 1.2 P, Q; 2.2 A, B
Section 05120 Articles 1.4 A (deleted), 3.3 A
Section 16525 Articles 1.6 A, B

Change Two – Included in 2002 Standard Specifications

Revised December 19, 2002

Section 01561 Article 3.1 A
Section 02075 Article 2.7 A
Section 02372 Article 2.1 A 4
Section 02455 Article 3.3 B 2
Section 02785 Article 3.2 C
Section 02861 Article 3.3 A
Section 03055 Articles 1.2 P (inserted), 2.3 B, 2.4 (deleted), 2.7 A 1 a-e (added), 2.7 B 2
(added), 2.8 A 1 a, 2.8 A 2 (deleted), 2.9 A3, 3.2 A Table, 3.2 C, 3.7 A 3, 3.8 C 1, 3.9 A-
B, 3.10, 3.11 B 1, 3.11 B 3
Section 07922 Article 2.1 Table 1

Change Three

Revised February 27, 2003

- Section 01355 Article 1.3 A 3
- Section 01721 1.4 C deleted and moved to Measurement and Payment document
- Section 02222 Changed title from Site Demolition-Pavement to Site Demolition - Concrete, A, 3.2 Title, 3.2 A
- Section 02224 New Specification
- Section 02316 1.2 A, D, I added, 1.3 added, 1.7 B, C, D, E, F, G added, 3.9 A added
- Section 02455 3.3 B 2 (corrected error from change two)
- Section 02721 1.2 Related Sections added, 1.3 H and I added, 1.7 B, 1.7 F deleted, 2.1 B added, 2.2 deleted, 3.1 Title changed, 3.2 B reference added, 3.2 E added
- Section 02741 1.4 C6a added, 1.4 H, Table 3, 2.4 A, 2.4 C, Table 9, 2.5 B 1-3, 2.5 B 4 added, 2.5 D, 3.1 A1 deleted, 3.2 C3 added, 3.7 D1, 3.9 B4, 3.9 B5 added, 3.9 E note added
- Section 02744 Entire Section deleted
- Section 02745 1.4 A9
- Section 02785 1.2 C and D added
- Section 02892 Added Articles, 1.3 N, O, Y, 1.5 D, 2.4 I, 2.5 C, D, E, 2.6 B3 - B6, 2.6 C, 2.16, 2.17, 3.11 and Revised Articles 3.5 F and Table Number, 3.5 G and Table Number
- Section 02896 2.1 A, B and 3.1 A drawing number corrected
- Section 16525 1.2 H

Change Four

Revised April 24, 2003

- Section 00555 1.18 added Table 1
- Section 01280 1.2 K
- Section 01282 1.13 B added, 1.13 G 2 deleted
- Section 02222 1.2 B Title Changed
- Section 02231 3.5 A
- Section 02705 Title Changed, 1.1 A, 1.3 added, 3.1 Title changed, 3.1 A, 3.1 D moved, 3.2 added
- Section 02741 3.7 B
- Section 02747 Entire Section deleted
- Section 02752 1.8 E 1
- Section 02753 3.1 D 5 a, 3.3 D
- Section 02842 2.4A
- Section 02861 2.1 I
- Section 02911 3.2 A 1
- Section 02931 3.2 B
- Section 03392 2.1 A 8-9
- Section 03921 2.1 A 1, 2.1 C
- Section 03922 2.1 B 1-2
- Section 03923 2.1 A-B, 3.1 B
- Section 03924 2.2 A-B

State-Orange Book With 8 ½" x 11" Plan Sheets

Section 03935 2.1 A, 2.1 A 2

Section 07105 2.3 A

Section 13553 1.2 C Title Changed

Section 13554 1.1 A, 1.3 C and D added, 2.1 A, 2.1 F, 2.2 D 1, 2.2 D 2 deleted, 2.2 E, 2.2 H, 2.2 H 2, 2.2 H 3 deleted and renumbered, 3.1 B 3 added, 3.1 I

III. Listing of Revised Standard Drawings

Change One

Revised December 19, 2002

| | | |
|-------|--|------------|
| AT 7 | Polymer Concrete Junction Box Details | 12/19/2002 |
| BA 1A | Precast Concrete Full Barrier Standard Section | 12/19/2002 |
| BA 1B | Precast Concrete Full Barrier Standard Section | 12/19/2002 |
| BA 3 | Cast In Place Constant Slope Barrier | 12/19/2002 |
| BA 4B | Beam Guardrail Installations | 12/19/2002 |
| BA 4C | Beam Guardrail Anchor Type I | 12/19/2002 |
| CC 6 | Crash Cushion Type E Sand Barrel Details | 12/19/2002 |
| DG 3 | Maximum Fill Height and End Sections for HDPE And PVC Pipes | 12/19/2002 |
| DG 4 | Pipe Culverts Minimum Cover | 12/19/2002 |
| EN 4 | Temporary Erosion Control (Drop-Inlet Barriers) | 12/19/2002 |
| GW 1 | Raised Median and Plowable End Section | 12/19/2002 |
| PV 2 | Pavement Approach Slab Details | 12/19/2002 |
| SL 13 | Traffic Counting Loop Detector Details | 12/19/2002 |
| SN 2 | Flashing School Sign | 12/19/2002 |
| SN 4 | Flashing Stop Sign | 12/19/2002 |
| SN 5 | Typical Installation For Milepost Signs | 12/19/2002 |
| SN 8 | Ground Mounted Timber Sign Post (P1) | 12/19/2002 |
| ST 1 | Object Marker "T" Intersection and Pavement Transition Guidance | 12/19/2002 |
| ST 7 | Pavement Markings and Signs at Railroad Crossings | 12/19/2002 |
| SW 3A | Precast Concrete Noise Wall 1 of 2 | 12/19/2002 |
| SW 3B | Precast Concrete Noise Wall 2 of 2 | 12/19/2002 |
| SW 4A | Precast Concrete Retaining/Noise Wall 1 of 2 | 12/19/2002 |

Change Two

Revised February 27, 2003

| | | |
|------|--------------------------|------------|
| GW 2 | Concrete Curb and Gutter | 02/27/2003 |
| GW 5 | Pedestrian Access | 02/27/2003 |

State-Orange Book With 8 ½" x 11" Plan Sheets

Change Three

Revised April 24, 2003

| | | |
|--------|---|------------------|
| AT 7 | Polymer-Concrete Junction Box Details | 04/24/2003 |
| CB 2 | Curb Inlet Catch Basin | 04/24/2003 |
| CC 7 | Grading & Installation Details Crash Cushion Type F | 04/24/2003 |
| CC 8 | Grading & Installation Details Crash Cushion Type G | 04/24/2003 |
| CC 9A | Grading & Installation Details Crash Cushion Type H | 04/24/2003 (New) |
| CC 9B | Grading & Installation Details Crash Cushion Type H | 04/24/2003 (New) |
| EN 2 | Temporary Erosion Control (Silt Fence) | 04/24/2003 |
| GW 2 | Concrete Curb and Gutter | 04/24/2003 |
| SN 12B | Ground Mounted Sign Installation Details | 04/24/2003 |

IV. Materials Minimum Sampling and Testing

Follow the requirements of the Current Materials Minimum Sampling and Testing Manual:

Materials Minimum Sampling and Testing Manual reference can be found from the UDOT Web Site at:

<http://www.dot.utah.gov/esd/Manuals/Materials/MaterialsSampling.htm>

**For UDOT employees the Manual can also be found on the Shared Drive at:
\Shared\Engineering Services\Manuals\Materials (W drive for the Complex
and R drive for the Regions)**

State-Orange Book With 8 ½" x 11" Plan Sheets

V. Notice to Contractors



NOTICE TO CONTRACTORS

Sealed proposals will be received by the Utah Department of Transportation UDOT/DPS Building (4th Floor), 4501 South 2700 West, Salt Lake City, Utah. 84114-8220, until 2 o'clock p.m. Tuesday, August 12, 2003, and at that time the download process of bids from the USERTrust Vault to UDOT will begin, with the public opening of bids scheduled at 2:30 for PAVEMENT PRESERVATION of SR-134; FROM SR-37 TO SR-126 HMA OVERLAY in WEBER County, the same being identified as State Maintenance Project No: SP-0134(3)0.

Federal Regulations:

Wage Rate Non-Applicable.

Project Location: 11.3 Miles of Route: 0134 from R.P. 0.00 to R.P. 11.30

The principal items of work are as follows (for all items of work see attachment):

HMA Mix - 1/2 inch
Reconstruct Manhole
Emulsified Asphalt CSS-1H

The project is to be completed: in 30 Working Days.

Other Requirements:

All project bidding information, including Specifications and Plans, can be viewed, downloaded, and printed from UDOT's Project Development Construction Bid Opening Information website, <http://www.dot.utah.gov/cns/bidopeninfo.htm>. To bid on UDOT projects, bidders must use UDOT's Electronic Bid System (EBS). The EBS software and EBS training schedules are also available on this website.

Project information can also be reviewed at the main office in Salt Lake City, its Region offices, and its District offices in Price, Richfield, and Cedar City.

Project Plans cannot be downloaded or printed from the website unless your company is registered with UDOT. Go to UDOT's website to register. Unregistered companies may obtain a **CD**, that contains the Specifications and Plans, from the main office, 4501 South 2700 West, Salt Lake City, (801) 965-4346, for a fee of \$20.00, plus tax and mail charge, if applicable, none of which will be refunded.

Prequalification of bidders is required. Prior to submitting a bid, the bidder must have on file with the Utah Department of Transportation a completed and approved contractor's application for prequalification. Department processing time is 10 working days from receipt of properly executed documentation.

As required, a contractor's license must be obtained from the Utah Department of Commerce.

Each bidder must submit a bid bond from an approved surety company on forms provided by the Department; or in lieu thereof, cash, certified check, or cashier's check for not less than 5% of the total amount of the bid, made payable to the Utah Department of Transportation, showing evidence of good faith and a guarantee that if awarded the contract, the bidder will execute the contract and furnish the contract bonds as required.

The right to reject any or all bids is reserved.

If you need an accommodation under the Americans with Disabilities Act, contact the Construction Division at (801) 965-4346. Please allow three working days.

Additional information may be secured at the office of the Utah Department of Transportation, (801) 965-4346.

Dated this 26th day of July, 2003.

UTAH DEPARTMENT OF TRANSPORTATION
John R. Njord, Director

VI. EQUAL OPPORTUNITY (STATE PROJECTS)

Selection of Subcontractors, Service Providers, Procurement of Materials and Leasing of Equipment:

Do not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

Notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. Use best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Obtain lists of DBE construction firms from SHA personnel.

Use best efforts to ensure subcontractor compliance with their EEO obligations.

Selection of Labor:

During the performance of this contract, do not discriminate against labor from any other State, possession, or territory of the United States.

Employment Practices:

During the performance of this contract, the Contractor agrees as follows:

Do not discriminate against any employee or applicant for employment because of race, religion, sex, color, national origin, age, or disability. Take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, sex, color, national origin, age, or disability. Such action includes, but is not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Department of Transportation setting forth the provisions of this nondiscrimination clause.

In all solicitations or advertisements for employees state that all qualified applicants receive consideration for employment without regard to race, religion, sex, color, national origin, age, or disability.

State-Orange Book With 8 ½" x 11" Plan Sheets

Send to each labor union or representative of workers that the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State Department of Transportation advising the said labor union or worker' representative of the commitments under this section and post copies of the notice in conspicuous places available to employees and applicants for employment.

In the event of noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further State contracts.

Include the provisions of this Section in every subcontract or purchase order so that such provision will be binding upon each Subcontractor or vendor. Take such action with respect to any subcontract or purchase order as the State Department of Transportation may direct as a means of enforcing such provisions including sanctions for noncompliance.

VII. Bidding Schedule

Utah Department of Transportation

Bidder's Schedule

Bid Opening Date: 8/12/2003

Region: REGION 1

Project Number: SP-0134(3)0

County: WEBER

Project Name: SR-134; FROM SR-37 TO SR-126 HMA OVERLAY

Description: PAVEMENT PRESERVATION

Funding: MAINTENANCE

DBE Goal:

| # | Item | Description | Quantity | Unit |
|---------------------|-----------|--|----------|----------|
| 10 - ROADWAY | | | | |
| 1 | 012850010 | Mobilization | 1 | lump sum |
| 2 | 013150010 | Public Information Services | 1 | lump sum |
| 3 | 015540005 | Traffic Control | 1 | lump sum |
| 4 | 01892001* | Reconstruct Catch Basin | 1 | each |
| 5 | 01892002* | Reconstruct Cleanout Box | 3 | each |
| 6 | 01892004* | Reconstruct Valve Box | 72 | each |
| 7 | 01892005* | Reconstruct Manhole | 70 | each |
| 8 | 02721007* | Untreated Base Course (Shoulder Dressing) 3/4 inch or 1 inch Max | 1325 | ton |
| 9 | 02721008* | Untreated Base Course 3/4 inch or 1 inch Max | 225 | ton |
| 10 | 027410010 | HMA Mix - 1/2 inch | 17330 | ton |
| 11 | 027480060 | Emulsified Asphalt CSS-1H | 141 | ton |
| 12 | 02765002* | Pavement Message Paint | 292 | each |
| 13 | 02765005* | Pavement Marking Paint | 275 | gallon |

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

VII. MEASUREMENT AND PAYMENT

The Department will measure and pay for each bid item as detailed in this section.
Payment is contingent upon acceptance by the Department.

Items are listed by Specification and in tables as follows:

Section XXXXX: Section Name

| Item # | Bid item number | Bid Item Name | Unit of measurement and payment |
|-----------------------------------|-----------------|---------------|---------------------------------|
| Additional information goes here. | | | |

Section 01285: Mobilization

| | | | |
|---|-----------|---|---|
| 1 | 012850010 | Mobilization | Lump sum |
| | Payment | Amount Paid | When Paid |
| | First | The lesser of 25% of mobilization or 2.5% of contract | With first estimate |
| | Second | The lesser of 25% of mobilization or 2.5% of contract | With estimate following completion of 5% of contract |
| | Third | The lesser of 25% of mobilization or 2.5% of contract | With estimate following completion of 10% of contract |
| | Fourth | The lesser of 25% of mobilization or 2.5% of contract | With estimate following completion of 20% of contract |
| | Final | Amount bid in excess of 10% of contract price. | Project Acceptance-Final |

Section 01315: Public Information Services

| 2 | 013150010 | Public Information Services | Lump Sum | | | | | | | | | | | | |
|--|--------------------------------|-----------------------------|----------|-------------------------------|----------------------|---|----|----|-------------------------------|----|-------------------------------|----|-------------------------------|-----|--------------------------------|
| <p>A. Includes compensation for:</p> <ul style="list-style-type: none">1. All fliers, public information office, telephone lines, and all other labor and materials required to complete the item.2. All costs for materials, installation, maintenance, and removal of the public information services signs. <p>B. The Engineer will monitor the PIM and all public information services.</p> <ul style="list-style-type: none">1. When the Contractor provides acceptable public information services in accordance with these specifications, partial payments for the pay item "Public Information Services" will be made as the work progresses.2. Failure to provide acceptable public information services will result in withholding of payment for this item.3. Partial payments made as follows: <table><thead><tr><th>% of Original Contract Earned</th><th>% of amount bid item</th></tr></thead><tbody><tr><td>5</td><td>25</td></tr><tr><td>10</td><td>40 less all previous payments</td></tr><tr><td>25</td><td>50 less all previous payments</td></tr><tr><td>75</td><td>75 less all previous payments</td></tr><tr><td>100</td><td>100 less all previous payments</td></tr></tbody></table> <p>C. The term "original Contract amount" as used above means the amount bid for the construction items on this Contract, not including the amounts bid for Public Information Services and Mobilization.</p> | | | | % of Original Contract Earned | % of amount bid item | 5 | 25 | 10 | 40 less all previous payments | 25 | 50 less all previous payments | 75 | 75 less all previous payments | 100 | 100 less all previous payments |
| % of Original Contract Earned | % of amount bid item | | | | | | | | | | | | | | |
| 5 | 25 | | | | | | | | | | | | | | |
| 10 | 40 less all previous payments | | | | | | | | | | | | | | |
| 25 | 50 less all previous payments | | | | | | | | | | | | | | |
| 75 | 75 less all previous payments | | | | | | | | | | | | | | |
| 100 | 100 less all previous payments | | | | | | | | | | | | | | |

Section 01554: Traffic Control

| 3 | 015540005 | Traffic Control | Lump Sum |
|----------|------------------|--|---------------------|
| | Payment | Amount Paid | When Paid |
| | One | 25% of the bid item amount | With first estimate |
| | | Remaining portion of bid item paid as a percentage of the contract completed | With each estimate |

Section 01892: Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes

| 4 | 01892001* | Reconstruct Catch Basin | Each |
|----------|------------------|--------------------------------|-------------|
| In place | | | |

Section 01892: Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes

| 5 | 01892002* | Reconstruct Cleanout Box | Each |
|----------|------------------|---------------------------------|-------------|
| In place | | | |

Section 01892: Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes

| | | | |
|----------|-----------|-----------------------|------|
| 6 | 01892004* | Reconstruct Valve Box | Each |
| In place | | | |

Section 01892: Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes

| | | | |
|----------|-----------|---------------------|------|
| 7 | 01892005* | Reconstruct Manhole | Each |
| In place | | | |

Section 02721: Untreated Base Course (UTBC)

| | | | |
|----------|-----------|--|-----|
| 8 | 02721007* | Untreated Base Course (Shoulder Dressing) 3/4 inch or 1 inch Max | Ton |
| In place | | | |

Section 02721: Untreated Base Course (UTBC)

| | | | |
|--|-----------|---|-----|
| 9 | 02721008* | Untreated Base Course ¾ inch or 1 inch max. | Ton |
| In place Include the cost of water for dust control and compaction in the unit cost for the item. | | | |

Section 02741: Hot Mix Asphalt

| | | | |
|---|-----------|-----------------|---------------|
| 10 | 027410010 | HMA Mix- ½ inch | Ton, in place |
| Include aggregates and all additives including hydrated lime and Asphalt Binder. The mass should be adjusted using the formula: $\text{Final Mass in Tons} = (2.756 \times W) / G_a$ Where W = Mass in Tons of HMA and G _a = Average maximum specific gravity of the mix (Rice Method - Current consecutive running average of up to five tests.) | | | |

Section 02748: Prime Coat/Tack Coat

| | | | |
|---|-----------|---------------------------|-----|
| 11 | 027480060 | Emulsified Asphalt CSS-1H | Ton |
| Diluted one to one as verified by the vendor's certified invoice. | | | |

Section 02765: Pavement Marking Paint

| 12 | 02765002* | Pavement Message Paint | Each |
|--|-----------|--|------|
| In place, measurement - Painted Pavement Messages: A. Letter = one message. B. Arrow = one message. C. Multi-headed arrow = one message per arrow. D. School crossbars = one message per 24 inch x 10 ft bar. E. Crosswalk = two messages per lane and two messages per shoulder. F. Stop Bar = one message per lane and one message per shoulder. G. Railroad crossing markings = seven messages per lane. 1. 'R' = one message each (two required). 2. 'X' = two messages. 3. Transverse Bar = one message each (two required). 4. Stop Bar = one message. | | | |
| Payment: A. The Department will not pay for removal of unauthorized, smeared, or damaged markings. B. Price reduction for paint application rate: | | | |
| Rate | | Pay Factor | |
| At the specified rate | | 1.0 | |
| 1-10 percent below the specified rate | | 0.75 | |
| 11-15 percent below the specified rate | | 0.50 | |
| More than 15 percent below the specified rate | | May be accepted at 0.40 percent or required to be repainted. | |

Section 02765: Pavement Marking Paint

| 13 | 02765005* | Pavement Marking Paint | Gallon |
|--|-----------|--|--------|
| In place, Payment: A. The Department will not pay for removal of unauthorized, smeared, or damaged markings. B. Price reduction for paint application rate: | | | |
| Rate | | Pay Factor | |
| At the specified rate | | 1.0 | |
| 1-10 percent below the specified rate | | 0.75 | |
| 11-15 percent below the specified rate | | 0.50 | |
| More than 15 percent below the specified rate | | May be accepted at 0.40 percent or required to be repainted. | |

IX. PDBS Summary Report

Project: SP-0134(3)0

Version: 1

SR-134; FROM SR-37 TO SR-126

| Detail | Alt Group | Alt # | Description | Qty | Unit |
|--------------|--|-------|-------------|------|------|
| 10 - ROADWAY | 0 | 0 | | | |
| Item Number | Description | | Qty | Unit | |
| 012850010 | Mobilization | | 1 | Lump | |
| 013150010 | Public Information Services | | 1 | Lump | |
| 015540005 | Traffic Control | | 1 | Lump | |
| 01892001* | Reconstruct Catch Basin | | 1 | Each | |
| 01892002* | Reconstruct Cleanout Box | | 3 | Each | |
| 01892004* | Reconstruct Valve Box | | 72 | Each | |
| 01892005* | Reconstruct Manhole | | 70 | Each | |
| 02721007* | Untreated Base Course (Shoulder Dressing) 3/4 inch or 1 inch Max | | 1,325 | Ton | |
| 02721008* | Untreated Base Course 3/4 inch or 1 inch Max | | 225 | Ton | |
| 027410010 | HMA Mix - 1/2 inch | | 17,330 | Ton | |
| 027480060 | Emulsified Asphalt CSS-1H | | 141 | Ton | |
| 02765002* | Pavement Message Paint | | 292 | Each | |
| 02765005* | Pavement Marking Paint | | 275 | gal | |

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|---------------------------------|-------------|------------|-----------|---------|--|
| 01892001* | Reconstruct Catch Basin | | | | 1 | Each |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 7.9 | | 8.1 | | 1.0 | Catch Basin at intersection of 2350 North in Plain City. |
| | | | | | 1.0 | |
| 01892002* | Reconstruct Cleanout Box | | | | 3 | Each |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 10.3 | | 10.7 | | 3.0 | Reconstruct cleanout boxes. |
| | | | | | 3.0 | |

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|------------------------------|-------------|------------|-----------|---------|---|
| 01892004* | Reconstruct Valve Box | | | | 72 | Each |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 0.0 | | 0.04 | | 1.0 | Water Valve |
| | 10.3 | | 10.7 | | 1.0 | Water Valve |
| | 1500 NORTH | | | | 4.0 | Water Valve |
| | 1600 SOUTH | | | | 1.0 | Water Valve |
| | 1800 SOUTH | | | | 2.0 | Water Valve |
| | 2125 NORTH | | | | 2.0 | Water Valve |
| | 2200 SOUTH | | | | 2.0 | Water Valve |
| | 2275 NORTH | | | | 1.0 | Water Valve |
| | 2350 NORTH | | | | 1.0 | Water Valve |
| | 2500 NORTH | | | | 1.0 | Water Valve |
| | 2500 WEST | | | | 1.0 | Water Valve |
| | 2550 SOUTH | | | | 3.0 | Water Valve |
| | 2575 NORTH | | | | 2.0 | Water Valve |
| | 3.7 | | 3.8 | | 3.0 | Water Valve |
| | 3000 SOUTH | | | | 1.0 | Water Valve |
| | 3300 SOUTH | | | | 3.0 | Water Valve |
| | 3425 WEST | | | | 2.0 | Water Valve |
| | 3450 SOUTH | | | | 1.0 | Water Valve |
| | 3550 WEST | | | | 2.0 | Water Valve |
| | 3600 WEST | | | | 2.0 | Water Valve |
| | 3850 SOUTH | | | | 2.0 | Water Valve |
| | 3975 WEST | | | | 1.0 | Water Valve |
| | 400 SOUTH | | | | 1.0 | Water Valve |
| | 4000 SOUTH | | | | 2.0 | Water Valve |
| | 4100 WEST | | | | 2.0 | Water Valve |
| | 4200 WEST | | | | 1.0 | Water Valve |
| | 4275 WEST | | | | 2.0 | Water Valve |
| | 4350 WEST | | | | 1.0 | Water Valve |
| | 4425 WEST | | | | 3.0 | Water Valve |
| | 4575 WEST | | | | 2.0 | Water Valve |
| | 6.8 | | 7.1 | | 1.0 | Water Valve |
| | 7.1 | | 7.9 | | 2.0 | Water Valve |
| | 8.1 | | 8.5 | | 3.0 | Water Valve |
| | 8.7 | | 8.8 | | 1.0 | Water Valve |
| | 8.8 | | 9.2 | | 1.0 | Water Valve |
| | 9.2 | | 9.5 | | 8.0 | Water Valve |
| | NEW ROAD | | | | 1.0 | New road located to the west of the west entrance of Fremont. |

Detailed Report

SP-0134(3)0

Version: 1

SR-134; FROM SR-37 TO SR-126

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|-------|-------------|
| | SR-39 | | | | 2.0 | Water Valve |
| | | | | | <hr/> | |
| | | | | | 72.0 | |

Note # Note

- 1 Quantity for bid only. Field verify and locate all valve boxes before construction.
- 2 Include all existing valve boxes that have no existing concrete collars.

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|----------------------------|-------------|------------|-----------|---------|---|
| 01892005* | Reconstruct Manhole | | | | 70 | Each |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 0.04 | | 3.7 | | 5.0 | Manhole |
| | 10.3 | | 10.7 | | 1.0 | Manhole |
| | 10.9 | | 11.3 | | 3.0 | Manhole |
| | 1500 NORTH | | | | 1.0 | Manhole |
| | 1975 NORTH | | | | 3.0 | Manhole |
| | 2125 NORTH | | | | 1.0 | Manhole |
| | 2200 NORTH | | | | 1.0 | Manhole |
| | 2350 NORTH | | | | 1.0 | Manhole |
| | 2500 NORTH | | | | 1.0 | Manhole |
| | 2500 WEST | | | | 1.0 | Manhole |
| | 2575 NORTH | | | | 1.0 | Manhole |
| | 2575 WEST | | | | 2.0 | Manhole |
| | 3300 SOUTH | | | | 2.0 | Manhole |
| | 3425 WEST | | | | 2.0 | Manhole |
| | 3550 WEST | | | | 2.0 | Manhole |
| | 3600 WEST | | | | 2.0 | Manhole |
| | 3850 SOUTH | | | | 1.0 | Manhole |
| | 3975 WEST | | | | 1.0 | Manhole |
| | 4100 WEST | | | | 1.0 | Manhole |
| | 4200 WEST | | | | 1.0 | Manhole |
| | 4275 WEST | | | | 1.0 | Manhole |
| | 4350 WEST | | | | 1.0 | Manhole |
| | 4425 WEST | | | | 1.0 | Manhole |
| | 4500 WEST | | | | 1.0 | Manhole |
| | 4575 WEST | | | | 1.0 | Manhole |
| | 6.8 | | 7.1 | | 3.0 | Manhole |
| | 7.1 | | 7.9 | | 8.0 | Manhole |
| | 7.9 | | 8.1 | | 4.0 | Manhole |
| | 8.1 | | 8.5 | | 4.0 | Manhole |
| | 8.7 | | 8.8 | | 1.0 | Manhole |
| | 8.8 | | 9.2 | | 1.0 | Manhole |
| | 9.2 | | 9.5 | | 8.0 | Manhole |
| | NEW ROAD | | | | 1.0 | New road located to the west of the west entrance of Fremont. |
| | SR-39 | | | | 1.0 | Manhole |
| | 2425 NORTH | | | | 1.0 | Manhole |
| | | | | | 70.0 | |

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

Note # Note

- 1 Field verify location and number of manholes to be reconstructed before construction begins.
- 2 Include all existing manholes that have no concrete collars.

02721007* Untreated Base Course (Shoulder Dressing) 3/4 inch or 1 inch Max 1,325 Ton

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|---------------|---|
| | 0.0 | | 11.3 | | 1,300.0 | Used a max depth of 1.5 inches and a runout of 2.5 feet |
| | 350 NORTH | | | | 25.0 | Single approach gravel intersection. |
| | | | | | <hr/> 1,325.0 | |

Note # Note

- 1 Assume a unit weight of 140 pounds per cubic foot.
- 2 Quantity includes leveling, grading, and compaction of material.

02721008* Untreated Base Course 3/4 inch or 1 inch Max 225 Ton

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|-------------|--|
| | .3 | | .35 | | 140.0 | Sub-base for intersection taper south of 3850 South |
| | 0.25 | | 0.3 | | 85.0 | Sub-base for intersection taper north of 3850 South. |
| | | | | | <hr/> 225.0 | |

Note # Note

- 1 6 inch layer of compacted UTBC in preparation of asphalt. Use under new asphalt shoulder tapers at 3850 South. Item includes water needed for dust control and to compact to 95% of optimum.
- 2 Assume a unit weight of 140 pounds per cubic foot.

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|---------------------------|-------------|------------|-----------|---------|--|
| 027410010 | HMA Mix - 1/2 inch | | | | 17,330 | Ton |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 0.0 | | 0.04 | | 60.0 | Assumed width of 30 feet. |
| | 0.25 | | 0.3 | | 100.0 | 6" lift of HMA req'd for north taper on 3850 South intersection. |
| | 0.3 | | 0.35 | | 150.0 | 6" lift of HMA req'd for south taper on 3850 South intersection. |
| | 10.3 | | 10.7 | | 1,060.0 | Assumed width of 55 feet. |
| | 10.7 | | 10.9 | | 245.0 | Assumed width of 25 feet. |
| | 10.9 | | 11.3 | | 965.0 | Assumed width of 50 feet. |
| | 100 NORTH | | | | 15.0 | Single approach. |
| | 1400 SOUTH | | | | 15.0 | Single approach. |
| | 1500 NORTH | | | | 30.0 | Twin approach. |
| | 1600 SOUTH | | | | 15.0 | Single approach. |
| | 1650 NORTH | | | | 15.0 | Single approach. |
| | 1800 SOUTH | | | | 30.0 | Twin approach. |
| | 1975 NORTH | | | | 15.0 | Single approach. |
| | 2125 NORTH | | | | 15.0 | Single approach. |
| | 2200 NORTH | | | | 30.0 | Twin approach. |
| | 2200 SOUTH | | | | 30.0 | Twin approach. |
| | 2275 NORTH | | | | 30.0 | Twin approach. |
| | 2350 NORTH | | | | 30.0 | Twin approach. |
| | 2400 SOUTH | | | | 15.0 | Single approach. |
| | 2425 NORTH | | | | 30.0 | Twin approach. |
| | 2500 NORTH | | | | 30.0 | Twin approach. |
| | 2500 WEST | | | | 15.0 | Single approach. |
| | 2550 SOUTH | | | | 30.0 | Twin approach. |
| | 2575 NORTH | | | | 30.0 | Twin approach. |
| | 2575 WEST | | | | 15.0 | Single approach. |
| | 2800 SOUTH | | | | 15.0 | Single approach. |
| | 3.7 | | 3.8 | | 190.0 | Assumed width of 40 feet. |
| | 3.8 | | 4.8 | | 1,195.0 | Assumed width of 25 feet. |
| | 3000 SOUTH | | | | 15.0 | Single approach. |
| | 3300 SOUTH | | | | 30.0 | Twin approach. |
| | 3425 WEST | | | | 15.0 | Single approach. |
| | 3450 SOUTH | | | | 15.0 | Single approach. |
| | 3550 WEST | | | | 15.0 | Single approach. |
| | 3600 WEST | | | | 15.0 | Single approach. |
| | 3850 SOUTH | | | | 15.0 | Single approach. |
| | 3975 WEST | | | | 15.0 | Single approach. |

Detailed Report

SP-0134(3)0

Version: 1

SR-134; FROM SR-37 TO SR-126

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|----------|--|
| 4.8 | | | 5.2 | | 515.0 | Assumed width of 27 feet. |
| 400 SOUTH | | | | | 15.0 | Single approach. |
| 4000 SOUTH | | | | | 20.0 | Single approach. |
| 4100 WEST | | | | | 15.0 | Single approach. |
| 4200 WEST | | | | | 15.0 | Single approach. |
| 4275 WEST | | | | | 15.0 | Single approach. |
| 4350 WEST | | | | | 15.0 | Single approach. |
| 4425 WEST | | | | | 30.0 | Twin approach. |
| 4500 WEST | | | | | 30.0 | Twin approach. |
| 4575 WEST | | | | | 30.0 | Twin approach. |
| 5.2 | | | 6.0 | | 960.0 | Assumed width of 25 feet. |
| 500 SOUTH | | | | | 15.0 | Single approach |
| 6.0 | | | 6.3 | | 390.0 | Assumed width of 27 feet. |
| 6.3 | | | 6.5 | | 440.0 | Assumed width of 45 feet. |
| 6.5 | | | 6.6 | | 150.0 | Assumed width of 30 feet. |
| 6.6 | | | 6.7 | | 225.0 | Assumed width of 45 feet. |
| 6.7 | | | 6.8 | | 135.0 | Assumed width of 27 feet. |
| 6.8 | | | 7.1 | | 870.0 | Assumed width of 60 feet. |
| 7.1 | | | 7.9 | | 960.0 | Assumed width of 25 feet. |
| 7.9 | | | 8.1 | | 490.0 | Assumed width of 50 feet. |
| 8.1 | | | 8.5 | | 485.0 | Assumed width of 25 feet. |
| 8.5 | | | 8.7 | | 260.0 | Assumed width of 26 feet. |
| 8.7 | | | 8.8 | | 200.0 | Assumed width of 40 feet. |
| 8.8 | | | 9.2 | | 485.0 | Assumed width of 25 feet. |
| 9.2 | | | 9.5 | | 560.0 | Assumed width of 40 feet. |
| 9.5 | | | 10.3 | | 960.0 | Assumed width of 25 feet. |
| 900 SOUTH | | | | | 15.0 | Single approach |
| 950 NORTH | | | | | 15.0 | Single approach. |
| NEW ROAD | | | | | 15.0 | Single approach. New road located to the west of the w entrance of Fremont. |
| SR-39 | | | | | 100.0 | Twin approach. |
| 0.04 | | | 3.7 | | 4,350.0 | Assumed width of 25 feet. |
| | | | | | 17,330.0 | |

Note # Note

- 1 Assume a unit weight of 144 pounds per cubic foot.
- 2 Assume that the depth of the overlay is 1.5 inches unless otherwise specified in the comments.
- 3 Quantities for the intersection approaches are assumed and should only be used for bidding purposes.
- 4 Tie asphalt section to gutter in areas that have curb and gutter. Other areas tie asphalt section to existing shoulder or travel lane.

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|----------------------------------|-------------|------------|-----------|---------|---|
| 027480060 | Emulsified Asphalt CSS-1H | | | | 141 | Ton |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 0.0 | | 0.04 | | 0.5 | Assumed width of 30 feet. |
| | 0.25 | | 0.3 | | 1.0 | North taper on 3850 South intersection. |
| | 0.3 | | 0.35 | | 1.0 | South taper on 3850 South intersection. |
| | 10.3 | | 10.7 | | 8.0 | Assumed width of 55 feet. |
| | 10.7 | | 10.9 | | 2.0 | Assumed width of 25 feet. |
| | 10.9 | | 11.3 | | 7.5 | Assumed width of 50 feet. |
| | 100 NORTH | | | | 0.25 | Single approach. |
| | 1400 SOUTH | | | | 0.25 | Single approach. |
| | 1500 NORTH | | | | 0.5 | Twin approach. |
| | 1600 SOUTH | | | | 0.25 | Single approach. |
| | 1650 NORTH | | | | 0.25 | Single approach. |
| | 1800 SOUTH | | | | 0.5 | Twin approach. |
| | 1975 NORTH | | | | 0.25 | Single approach. |
| | 2125 NORTH | | | | 0.25 | Single approach. |
| | 2200 SOUTH | | | | 0.5 | Twin approach. |
| | 2275 NORTH | | | | 0.5 | Twin approach. |
| | 2350 NORTH | | | | 0.5 | Twin approach. |
| | 2400 SOUTH | | | | 0.25 | Single approach. |
| | 2425 NORTH | | | | 0.5 | Twin approach. |
| | 2500 NORTH | | | | 0.5 | Twin approach. |
| | 2500 WEST | | | | 0.25 | Single approach. |
| | 2550 SOUTH | | | | 0.5 | Twin approach. |
| | 2575 NORTH | | | | 0.5 | Twin approach. |
| | 2575 WEST | | | | 0.25 | Single approach. |
| | 2800 SOUTH | | | | 0.25 | Single approach. |
| | 3.7 | | 3.8 | | 1.5 | Assumed width of 40 feet. |
| | 3.8 | | 4.8 | | 9.0 | Assumed width of 25 feet. |
| | 3000 SOUTH | | | | 0.25 | Single approach. |
| | 3300 SOUTH | | | | 0.5 | Twin approach. |
| | 3425 WEST | | | | 0.25 | Single approach. |
| | 3450 SOUTH | | | | 0.25 | Single approach. |
| | 3550 WEST | | | | 0.25 | Single approach. |
| | 3600 WEST | | | | 0.25 | Single approach. |
| | 3850 SOUTH | | | | 0.25 | Single approach. |
| | 3975 WEST | | | | 0.25 | Single approach. |
| | 4.8 | | 5.2 | | 4.0 | Assumed width of 27 feet. |
| | 400 SOUTH | | | | 0.25 | Single approach. |

Detailed Report

SP-0134(3)0

Version: 1

SR-134; FROM SR-37 TO SR-126

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|--------|--|
| 4000 SOUTH | | | | | 0.25 | Single approach. |
| 4100 WEST | | | | | 0.25 | Single approach. |
| 4200 WEST | | | | | 0.25 | Single approach. |
| 4275 WEST | | | | | 0.25 | Single approach. |
| 4350 WEST | | | | | 0.25 | Single approach. |
| 4425 WEST | | | | | 0.5 | Twin approach. |
| 4500 WEST | | | | | 0.5 | Twin approach. |
| 4575 WEST | | | | | 0.5 | Twin approach. |
| 5.2 | | | 6.0 | | 7.5 | Assumed width of 25 feet. |
| 500 SOUTH | | | | | 0.25 | Single approach |
| 6.0 | | | 6.3 | | 3.0 | Assumed width of 27 feet. |
| 6.3 | | | 6.5 | | 3.5 | Assumed width of 45 feet. |
| 6.5 | | | 6.6 | | 1.5 | Assumed width of 30 feet. |
| 6.6 | | | 6.7 | | 2.0 | Assumed width of 45 feet. |
| 6.7 | | | 6.8 | | 1.0 | Assumed width of 27 feet. |
| 6.8 | | | 7.1 | | 6.5 | Assumed width of 60 feet. |
| 7.1 | | | 7.9 | | 7.25 | Assumed width of 25 feet. |
| 7.9 | | | 8.1 | | 4.0 | Assumed width of 50 feet. |
| 8.1 | | | 8.5 | | 3.75 | Assumed width of 25 feet. |
| 8.5 | | | 8.7 | | 2.0 | Assumed width of 26 feet. |
| 8.7 | | | 8.8 | | 1.5 | Assumed width of 40 feet. |
| 8.8 | | | 9.2 | | 3.75 | Assumed width of 25 feet. |
| 9.2 | | | 9.5 | | 4.5 | Assumed width of 40 feet. |
| 9.5 | | | 10.3 | | 7.25 | Assumed width of 25 feet. |
| 900 SOUTH | | | | | 0.25 | Single approach |
| 950 NORTH | | | | | 0.25 | Single approach. |
| NEW ROAD | | | | | 0.25 | Single approach. New road located to the west of the w entrance of Fremont. |
| SR-39 | | | | | 1.0 | Twin approach. |
| 0.04 | | | 3.7 | | 32.5 | Assumed width of 25 feet. |
| 2200 NORTH | | | | | 1.0 | Twin approach. |
| | | | | | 141.25 | |

Note # Note

- 1 Assume an application rate of 0.15 gallons per square yard.
- 2 Assume a unit weight of 250 gallons per ton.

Detailed Report
SP-0134(3)0
SR-134; FROM SR-37 TO SR-126

Version: 1

10 - ROADWAY

Alt Group: 0 Alt #: 0

| Item Number | Description | | | | Use Qty | Unit |
|------------------|-------------------------------|-------------|------------|-----------|---------|---|
| 02765002* | Pavement Message Paint | | | | 292 | Each |
| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
| | 100 NORTH | | | | 1.0 | STOP BAR |
| | 1400 SOUTH | | | | 1.0 | STOP BAR |
| | 1500 NORTH | | | | 2.0 | STOP BARS |
| | 1600 SOUTH | | | | 1.0 | STOP BAR |
| | 1650 NORTH | | | | 1.0 | STOP BAR |
| | 1800 SOUTH | | | | 2.0 | STOP BARS |
| | 1975 NORTH | | | | 15.0 | 1 STOP BAR, 14 SCHOOL XING |
| | 2125 NORTH | | | | 13.0 | 1 STOP BAR, 12 SCOOOL XING |
| | 2200 NORTH | | | | 1.0 | STOP BAR |
| | 2200 NORTH | | | | 2.0 | STOP BARS |
| | 2200 SOUTH | | | | 2.0 | STOP BARS |
| | 2275 NORTH | | | | 2.0 | STOP BARS |
| | 2350 NORTH | | | | 17.0 | 3 STOP BARS, 14 SCHOOL XING |
| | 2400 SOUTH | | | | 1.0 | STOP BAR |
| | 2425 NORTH | | | | 26.0 | 2 STOP BARS, 24 SCHOOL XING |
| | 2500 NORTH | | | | 8.0 | 2 STOP BARS, 6 SCHOOL XING |
| | 2500 WEST | | | | 1.0 | STOP BAR |
| | 2550 SOUTH | | | | 2.0 | STOP BARS |
| | 2575 NORTH | | | | 12.0 | 2 STOP BARS, 10 SCHOOL XING |
| | 2575 WEST | | | | 1.0 | STOP BAR |
| | 2800 SOUTH | | | | 1.0 | STOP BAR |
| | 3.5 | | 4.0 | | 43.0 | 2 STOP AHEAD, 11 STOP BARS, 12 RAIL RAOD, 2 TURN ARROWS |
| | 3000 SOUTH | | | | 1.0 | STOP BAR |
| | 3300 SOUTH | | | | 2.0 | STOP BARS |
| | 3425 WEST | | | | 1.0 | STOP BAR |
| | 3450 SOUTH | | | | 1.0 | STOP BAR |
| | 3550 WEST | | | | 1.0 | STOP BAR |
| | 3600 WEST | | | | 1.0 | STOP BAR |
| | 3850 SOUTH | | | | 1.0 | STOP BAR |
| | 3975 WEST | | | | 1.0 | STOP BAR |
| | 400 SOUTH | | | | 1.0 | STOP BAR |
| | 4000 SOUTH | | | | 1.0 | STOP BAR |
| | 4100 WEST | | | | 1.0 | STOP BAR |
| | 4200 WEST | | | | 1.0 | STOP BAR |
| | 4275 WEST | | | | 12.0 | 2 STOP BARS, 10 SCHOOL XING |
| | 4425 WEST | | | | 17.0 | 2 STOP BARS, 15 SCHOOL XING |
| | 4500 WEST | | | | 2.0 | STOP BARS |

Detailed Report

SP-0134(3)0

Version: 1

SR-134; FROM SR-37 TO SR-126

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|-------|---|
| | 4575 WEST | | | | 2.0 | STOP BARS |
| | 500 SOUTH | | | | 1.0 | STOP BAR |
| | 7.1 | | 7.9 | | 20.0 | 2 STOP AHEAD, 2 STOP BARS |
| | 7.9 | | 8.1 | | 18.0 | 12 SCHOOL XING, 1 SCHOOL |
| | 8.1 | | 8.5 | | 15.0 | 1 SCHOOL, 1 STOP AHEAD |
| | 8.5 | | 8.7 | | 11.0 | 1 STOP AHEAD, 2 STOP BARS |
| | 8.7 | | 11.2 | | 23.0 | 15, SCHOOL XING, 3 STOP BARS, 1 ONLY, 4 TURN ARROWS |
| | 900 SOUTH | | | | 1.0 | STOP BAR |
| | 950 NORTH | | | | 1.0 | STOP BAR |
| | NEW ROAD | | | | 1.0 | STOP BAR, New road located to the west of the west entrance on Fremont High |
| | | | | | 292.0 | |

Note # Note

- 1 Identify exact location of existing markings before construction.
- 2 Assumed single coat for bid.
- 3 Use quantities for bidding, field verify location and placement of all markings before construction.

02765005*

Pavement Marking Paint

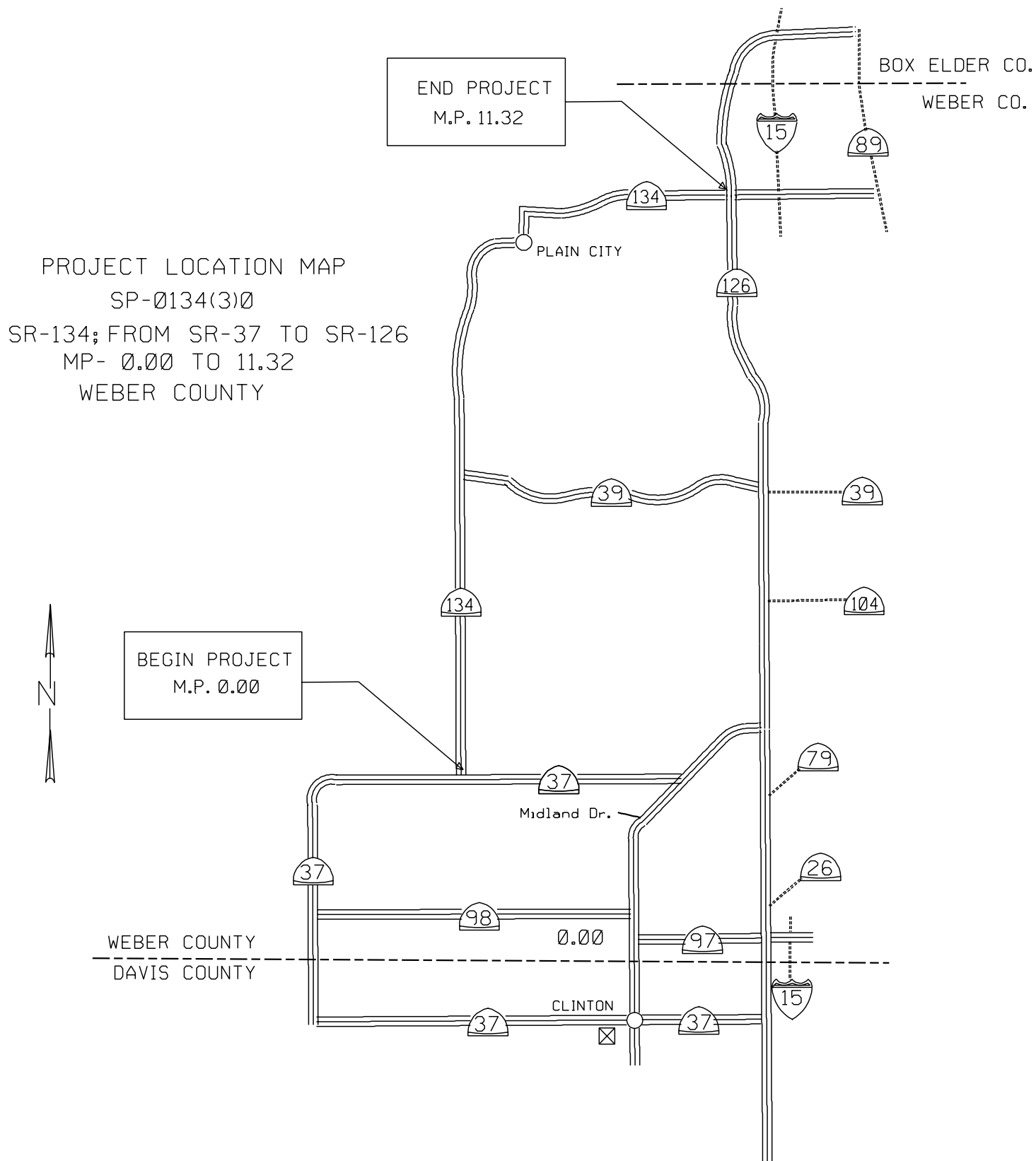
275 gal

| Line/Sheet | From Station | From Offset | To Station | To Offset | Qty | Comment |
|------------|--------------|-------------|------------|-----------|-------|--|
| | 0.0 | | 11.3 | | 275.0 | Approximate number of gallons required for SR-134. |
| | | | | | 275.0 | |

Note # Note

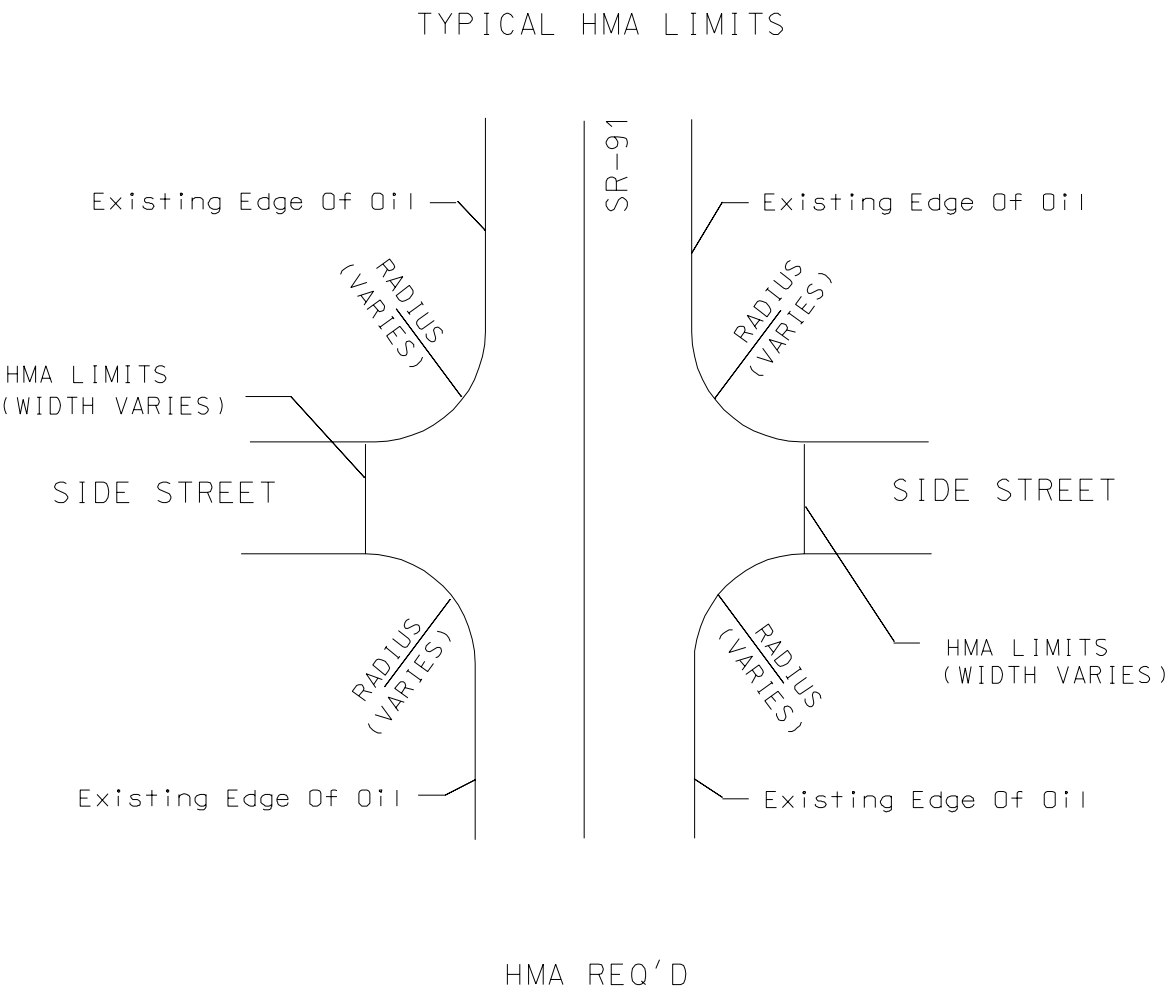
- 1 Assumed an application rate of 270 feet per gallon.
- 2 Estimate assumed use of single coat of paint.

XI. LOCATION MAP



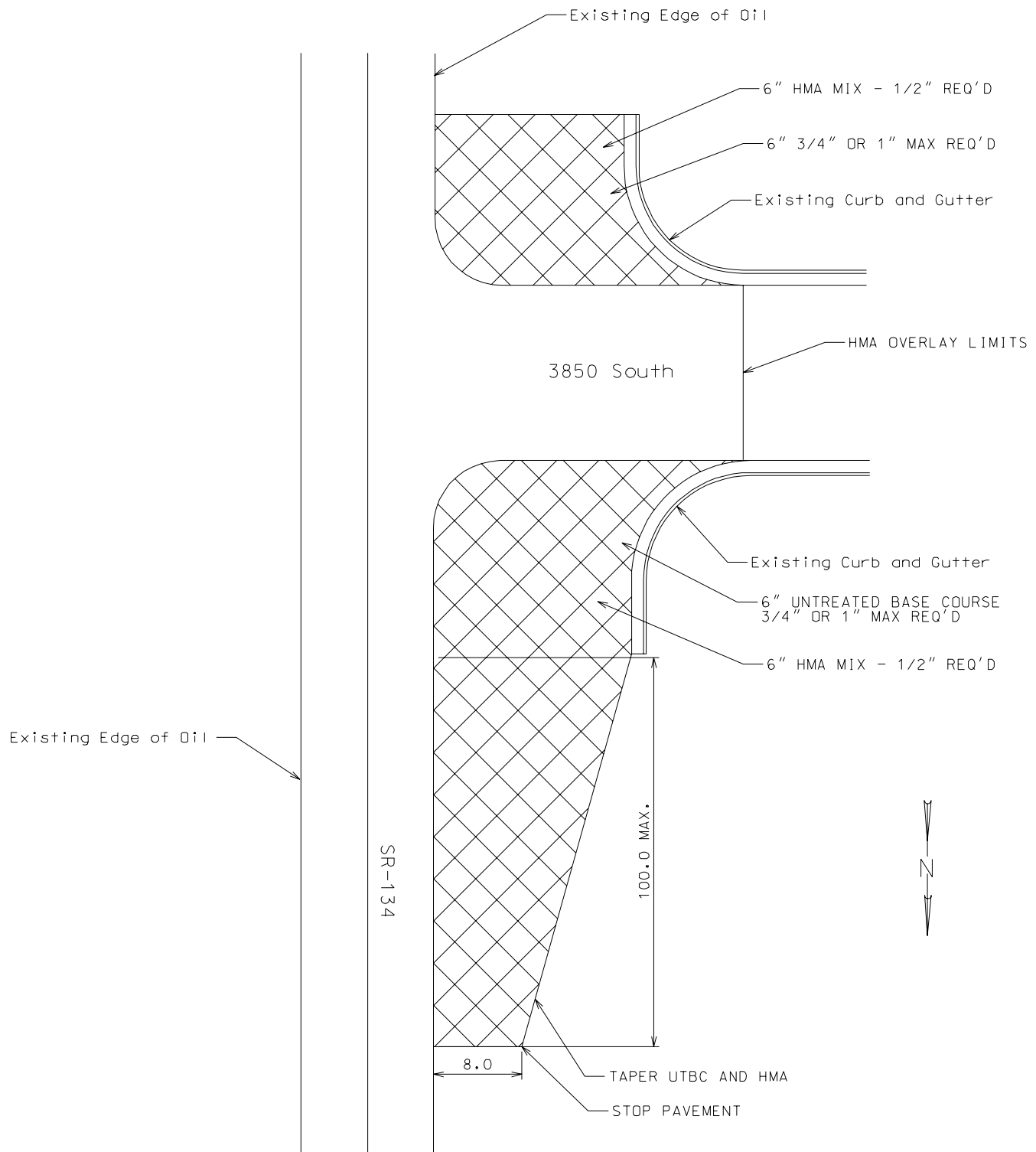
XII. Typical Sections or Detail Sheets

DETAIL



SEE SURFACING SUMMARY FOR APROXIMATE QUANTITIES AND LOCATIONS

NOTE: PLACE HMA ON APPROACHES LISTED IN THE DETAILED REPORT PER LIMITS SPECIFIED OR AS PER ABOVE DETAIL.

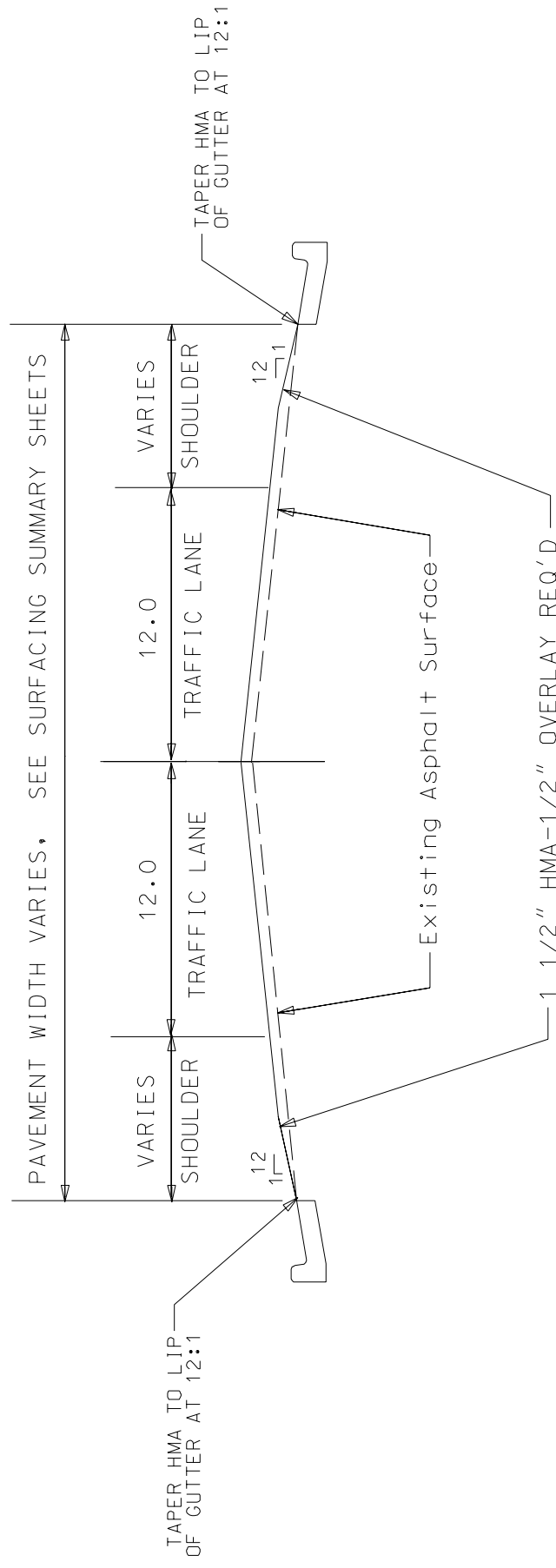


INTERSECTION DETAIL

NOTE: PLACE 6" LIFT OF UTBC COMPACT AS PER SPEC.
 TERMINATE UTBC AND HMA AS SHOWN PER ABOVE DETAIL.
 ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
 SEE SURFACING SUMMARY FOR APPROXIMATE QUANTITIES.

TYPICAL CROSS SECTION

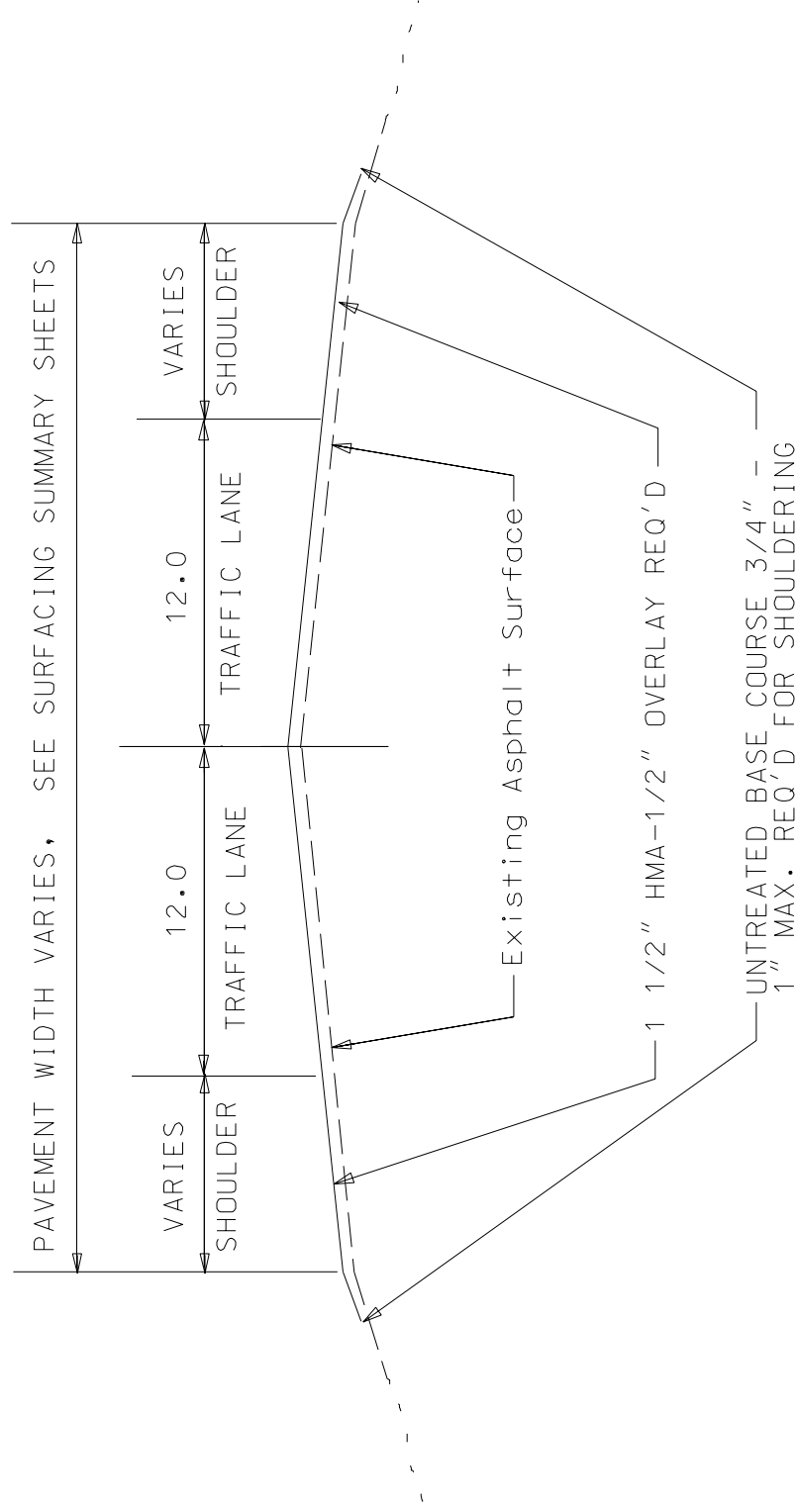
SR-134



NOTE: ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED
PAVEMENT SECTIONS WITH CURB AND GUTTER
VARIES, SEE SURFACING SUMMARY SHEETS FOR EXACT LOCATIONS.

TYPICAL CROSS SECTION

SR-134



NOTE: ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED

XIII. STANDARD DRAWINGS INDEX

(Change Three, Dated 06/02/03)

UTAH DEPARTMENT OF TRANSPORTATION

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|--|--------------|
| | | Advanced Traffic Management System (AT) | |
| | AT 1 | Legend Sheet | 07/03/02 |
| | AT 2 | Ramp Meter Details | 07/03/02 |
| | AT 3 | Ramp Meter Sign Panel | 07/03/02 |
| | AT 4 | Typical Ramp Meter Signal Head Mounting | 07/03/02 |
| | AT 5 | Loop Installation | 07/03/02 |
| | AT 6 | Conduit Details | 07/03/02 |
| | AT 7 | Polymer-Concrete Junction Box Details | 04/24/03 |
| | AT 8 | ATMS Cabinet w/120V Disconnect | 07/03/02 |
| | AT 9 | ATMS Cab With Stepdown Transformer | 07/03/02 |
| | AT 10 | Domed CCTV Details | 07/03/02 |
| | AT 11 | CCTV Pole Detail | 07/03/02 |
| | AT 12 | CCTV Pole Foundation For Dedicated CCTV Pole | 07/03/02 |
| | AT 13 | 120V VMS Cab Foundation Details | 07/03/02 |
| | AT 14 | Weigh In Motion Piezo Detail | 07/03/02 |
| | | Barriers (BA) | |
| | BA 1A | Precast Concrete Full Barrier Standard Section | 12/19/02 |
| | BA 1B | Precast Concrete Full Barrier Standard Section | 12/19/02 |
| | BA 2 | Precast Concrete Half Barrier Standard Section | 07/03/02 |
| | BA 3 | Cast In Place Constant Slope Barrier | 12/19/02 |
| | BA 4 | Beam Guardrail Hardware | 07/03/02 |
| | BA 4A | Guardrail Transition | 07/03/02 |
| | BA 4B | Beam Guardrail Installation | 12/19/02 |
| | BA 4C | Beam Guardrail Anchor Type I | 12/19/02 |
| | BA 5 | Traffic Control Cable | 07/03/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|--|--------------|
| | | Catch Basins and Cleanouts (CB) | |
| U | CB 1 | Standard Catch Basin | 07/03/02 |
| | CB 2 | Curb Inlet Catch Basin | 04/24/02 |
| | CB 3 | Standard Transition Concrete Lined Ditch To Pipe Or Diversion Box | 07/03/02 |
| | CB 4 | Solid Cover For Standard Drawing DB 1 MS-18 Loading | 07/03/02 |
| | CB 5 | Standard Screw Gate And Frame | 07/03/02 |
| | CB 6A | Standard Drop Inlet Details General Notes And Installation Detail | 07/03/02 |
| | CB 6B | Standard Catch Basin And Cleanout Box Drop Inlet Type "A" Details | 07/03/02 |
| | CB 6C | Standard Catch Basin And Cleanout Box Drop Inlet Type "B" Details | 07/03/02 |
| | CB 6D | Standard Catch Basin And Cleanout Box Drop Inlet Type "C" Details | 07/03/02 |
| | CB 6E | Standard Catch Basin And Cleanout Box Drop Inlet With Attached Apron Details | 07/03/02 |
| | CB 6F | Standard Catch Basin And Cleanout Box Drop Inlet With Attached Apron Details | 07/03/02 |
| | CB 6G | Standard Catch Basin And Cleanout Box Drop Inlet Type "D" Details | 07/03/02 |
| | CB 6H | Standard Catch Basin And Cleanout Box Drop Inlet Type "D" Tables | 07/03/02 |
| | CB 7 | Standard Curb And Gutter Drop Inlet | 07/03/02 |
| | CB 8A | Double Catch Basin | 07/03/02 |
| | CB 8B | Double Catch Basin | 07/03/02 |
| U | CB 9A | Standard Catch Basin and Cleanout Box Situation & Layout | 07/03/02 |
| U | CB 9B | Standard Catch Basin and Cleanout Box Section Details | 07/03/02 |
| | CB 9C | Standard Catch Basin and Cleanout Box Schedule Of Installation 18" to 42" RCP 12" to 48" CMP | 07/03/02 |
| | CB 9D | Standard Catch Basin and Cleanout Box Schedule Of Installation 48" to 66" RCP 60" to 78" CMP | 07/03/02 |
| | CB 10A | Standard Catch Basin and Cleanout Box Situation & Layout | 07/03/02 |
| | CB 10B | Standard Catch Basin and Cleanout Box Section Details | 07/03/02 |
| | CB 10C | Standard Catch Basin and Cleanout Box Schedule Of Installation 42" to 60" RCP 48" to 72" CMP | 07/03/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|---|--------------|
| | | Crash Cushions (CC) | |
| | CC 1 | Crash Cushion Markings | 07/03/02 |
| | CC 2 | Crash Cushion Drainage Details Guideline A | 07/03/02 |
| | CC 3 | Crash Cushion Drainage Details Guideline B | 07/03/02 |
| | CC 4 | Details For Placement Crash Cushions Type A, B, & D | 07/03/02 |
| | CC 5 | Grading And Placement Detail Crash Cushion Type C | 07/03/02 |
| | CC 6 | Crash Cushion Type E Sand Barrel Details | 12/19/02 |
| | CC 7 | Grading & Installation Details Crash Cushion Type F | 04/24/03 |
| | CC 8 | Grading & Installation Details Crash Cushion Type G | 04/24/03 |
| | CC 9A | Grading & Installation Details Crash Cushion Type H | 04/24/03 |
| | CC 9B | Grading & Installation Details Crash Cushion Type H | 04/24/03 |
| | | Diversion Boxes (DB) | |
| | DB 1A | Standard Diversion Box/Cover Plate/Grating For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 1B | Standard Diversion Box Hinged Lid Details For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 1C | Standard Diversion Box Bicycle - Safe Grating Details For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 1D | Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 1E | Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 1F | Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe | 07/03/02 |
| | DB 2A | Standard Diversion Box w/Interchangeable Walls, Bottom Slab, Walls and Apron Detail | 07/03/02 |
| | DB 2B | Standard Diversion Box w/Interchangeable Walls, Quantities Schedule | 07/03/02 |
| | DB 2C | Standard Diversion Box w/Interchangeable Walls, Hand Slide Gate Details | 07/03/02 |
| | DB 2D | Standard Diversion Box Type "G" Hand Slide Details | 07/03/02 |
| | DB 2E | Standard Diversion Box Hinged Lid (Solid Cover Plate) Type "A" Details Type I Plan | 07/03/02 |
| | DB 2F | Standard Diversion Box Hinged Lid (Solid Cover Plate) Type "A" Details Type II Plan | 07/03/02 |
| | DB 2G | Standard Diversion Box Hinged Lid Solid Cover Type "B" Details | 07/03/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|--|--------------|
| | DB 2H | Standard Diversion Box Hinged Lid Solid Cover Type "B" & "C" Details | 07/03/02 |
| | DB 3A | Standard Diversion Box With Manhole Cover Situation And Layout | 07/03/02 |
| | DB 3B | Standard Diversion Box With Manhole Cover Up To 42" RCP and Up To 54" CMP | 07/03/02 |
| | DB 3C | Standard Diversion Box With Manhole Cover 48" - 72" RCP and 60" to 84" CMP | 07/03/02 |
| | | Drainage (DG) | |
| | DG 1 | Fill Height for Metal Pipe (Steel) | 07/03/02 |
| | DG 2 | Fill Height for Metal Pipe (Aluminum) | 07/03/02 |
| | DG 3 | Maximum Fill Height and End Sections For HDPE and PVC Pipes | 12/19/02 |
| | DG 4 | Pipe Culverts Minimum Cover | 12/19/02 |
| | DG 5 | Plastic Pipe, Metal Pipe or Pipe Arch Culvert Bedding | 07/03/02 |
| | DG 6 | Precast Concrete Pipe Culvert | 07/03/02 |
| | DG 7 | Gasketed Joints or Coupling Bands for C.M.P. | 07/03/02 |
| | DG 8 | Metal Culvert End Sections | 07/03/02 |
| | DG 9 | Miscellaneous Pipe Details | 07/03/02 |
| | | Environmental Controls (EN) | |
| | EN 1 | Temporary Erosion Control (Check Dams) | 07/03/02 |
| | EN 2 | Temporary Erosion Control (Silt Fence) | 04/24/03 |
| | EN 3 | Temporary Erosion Control (Slope Drain and Temporary Berm) | 07/03/02 |
| | EN 4 | Temporary Erosion Control (Drop Inlet Barriers) | 12/19/02 |
| | EN 5 | Temporary Erosion Control (Sediment Trap and Curb Inlet Barrier) | 07/03/02 |
| | | Fence and Gates (FG) | |
| | FG 1A | Right-of-Way Fence and Gates (Wood Posts) | 07/03/02 |
| | FG 1B | Right-of-Way Fence and Gates (Wood Posts) | 07/03/02 |
| | FG 2A | Right-of-Way Fence and Gates (Metal Posts) | 07/03/02 |
| | FG 2B | Right-of-Way Fence and Gates (Metal Posts) | 07/03/02 |
| | FG 3 | Swing Gates Type I for Gates Less Than 17' | 07/03/02 |
| | FG 4 | Deer Gates | 07/03/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|---|--------------|
| | FG 5 | Swing Gates Type II for Gates Wider Than 17' | 07/03/02 |
| | FG 6 | Chain Link Fence | 07/03/02 |
| | | Grates, Frames, and Trash Racks (GF) | |
| | GF 1 | Manhole Frame And Grated Cover | 07/03/02 |
| U | GF 2 | Manhole Frame And Solid Cover | 07/03/02 |
| U | GF 3 | Rectangle Grate & Frame | 07/03/02 |
| | GF 4 | Directional Flow Grate & Frame | 07/03/02 |
| | GF 5 | Solid Cover & Frame | 07/03/02 |
| | GF 6 | Manhole Steps | 07/03/02 |
| | GF 7 | Standard Screw Grate & Frame | 07/03/02 |
| | GF 8 | 2' x 2' Grate & Frame | 07/03/02 |
| | GF 9 | 28" x 24" Directional Flow and Frame | 07/03/02 |
| | GF 10 | Standard Trash Racks 90E X-ing L | 07/03/02 |
| | GF 11 | Standard Trash Racks | 07/03/02 |
| | GF 12 | Standard Trash Racks | 07/03/02 |
| | | General Road Work (GW) | |
| | GW 1 | Raised Median and Plowable End Section | 12/19/02 |
| | GW 2 | Concrete Curb and Gutter | 04/24/03 |
| | GW 3 | Concrete Curb and Gutter Details | 07/03/02 |
| | GW 4 | Concrete Driveways and Sidewalks | 07/03/02 |
| | GW 5 | Pedestrian Access | 02/27/03 |
| | GW 6 | Right-of-Way Marker | 07/03/02 |
| | GW 7 | Newspaper and Mailbox Stop Layout | 07/03/02 |
| | GW 8 | Newspaper and Mailbox Support Hardware | 07/03/02 |
| | GW 9 | Delineation Hardware | 07/03/02 |
| | GW 10 | Delineation Application | 07/03/02 |
| | | Paving (PV) | |
| | PV 1 | Joints for Highways with Concrete Traffic Lanes and Shoulders | 07/03/02 |
| | PV 2 | Pavement/Approach Slab Details | 12/19/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|---|--------------|
| | PV 3 | Concrete Pavement Details for Urban and Interstate | 07/03/02 |
| | PV 4 | Concrete Pavement Details for Urban and Interstate | 07/03/02 |
| | PV 5 | Urban Concrete Pavement Details | 07/03/02 |
| | PV 6 | Rumble Strips | 07/03/02 |
| | PV 7 | Rumble Strips - Typical Application | 07/03/02 |
| | | Signals (SL) | |
| | SL 1 | Traffic Signals Mast Arm Pole and Luminaire Extension | 07/03/02 |
| | SL 2 | Traffic Signals Mast Arm Detail 25' Thru 65' | 07/03/02 |
| | SL 3 | Underground Service Pedestal Details | 07/03/02 |
| | SL 4 | Traffic Signals Mast Arm Pole Foundation | 07/03/02 |
| | SL 5 | Breakaway Post Mounted Traffic Signal Pole | 07/03/02 |
| | SL 6 | Power Source Details | 07/03/02 |
| | SL 7 | Span Wire Signal Pole Detail | 07/03/02 |
| | SL 8 | Signal Head Details | 07/03/02 |
| | SL 9 | Pedestrian Signal Assembly | 07/03/02 |
| | SL 10 | Controller Base Details | 07/03/02 |
| | SL 11 | Traffic Signals Loop Detector Detail | 07/03/02 |
| | SL 12 | Junction Box Details | 07/03/02 |
| | SL 13 | Traffic Counting Loop Detector Detail | 12/19/02 |
| | SL 14 | Light Pole Breakaway Base | 07/03/02 |
| | SL 15 | Luminaire Breakaway Base Detail | 07/03/02 |
| | SL 16 | Single Transformer Substation Details | 07/03/02 |
| | SL 17 | Light Pole Anchor Base | 07/03/02 |
| | SL 18 | Light Pole Foundation Extension | 07/03/02 |
| | | Signs (SN) | |
| | SN 1 | Bridge Load Limit Signs | 07/03/02 |
| | SN 2 | Flashing School Sign | 12/19/02 |
| | SN 3 | Overhead School Flasher | 07/03/02 |
| | SN 4 | Flashing Stop Sign | 12/19/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|--|--------------|
| | SN 5 | Typical Installation for Milepost Signs | 12/19/02 |
| | SN 6 | Not Used | |
| | SN 7 | Placement of Ground Mounted Signs | 07/03/02 |
| | SN 8 | Ground Mounted Timber Sign Post (P1) | 12/19/02 |
| | SN 9 | Ground Mounted Tubular Steel Sign Post (P2) | 07/03/02 |
| | SN 10 | Ground Mounted Square Steel Sign Post (P3) | 07/03/02 |
| | SN 11 | Slipbase Ground Mounted Tubular Steel Sign Post (P4) | 07/03/02 |
| | SN 12A | Ground Mounted Sign Installation Details | 07/03/02 |
| | SN 12B | Ground Mounted Sign Installation Details | 04/24/03 |
| | SN 12C | Ground Mounted Sign Installation Details | 07/03/02 |
| | | | |
| | | Striping (ST) | |
| | ST 1 | Object Markers "T" Intersection & Pavement Transition Guidance | 12/19/02 |
| | ST 2 | Freeway Turn Around Markings | 07/03/02 |
| U | ST 3 | Typical Pavement Markings | 07/03/02 |
| U | ST 4 | Crosswalks, Parking and Intersection Approaches | 07/03/02 |
| U | ST 5 | Painted Median & Auxiliary Lane Details | 07/03/02 |
| | ST 6 | Passing/Climbing Lanes Traffic Control | 07/03/02 |
| U | ST 7 | Pavement Markings & Signs at Railroad Crossing | 12/19/02 |
| | ST 8 | Plowable Pavement Markers | 07/03/02 |
| | | Structures and Walls (SW) | |
| | SW 1A | Welded End Guard Unit | 07/03/02 |
| | SW 1B | Precast Concrete Cattle Guard | 07/03/02 |
| | SW 2 | Noise Wall Placement Area | 07/03/02 |
| | SW 3A | Precast Concrete Noise Wall 1 of 2 | 12/19/02 |
| | SW 3B | Precast Concrete Noise Wall 2 of 2 | 12/19/02 |
| | SW 4A | Precast Concrete Retaining/Noise Wall 1 of 2 | 12/19/02 |
| | SW 4B | Precast Concrete Retaining/Noise Wall 2 of 2 | 07/03/02 |

State-Orange Book With 8 ½" x 11" Plan Sheets

| U | NUMBER | TITLE | CURRENT DATE |
|---|--------|--|--------------|
| | | Traffic Control (TC) | |
| U | TC 1A | Construction Zone Channelization Devices | 07/03/02 |
| U | TC 1B | Construction Zone Signing | 07/03/02 |
| U | TC 2A | Traffic Control General | 07/03/02 |
| U | TC 2B | Traffic Control General | 07/03/02 |
| | TC 3 | Traffic Control Project Limit Signing | 07/03/02 |
| | TC 4 | Traffic Control Urban Intersections With Roadways Under 50 MPH | 07/03/02 |
| | TC 5 | Traffic Control Urban Intersections With Roadways Under 50 MPH | 07/03/02 |
| | TC 6 | Traffic Control Pedestrian Routing | 07/03/02 |
| | TC 7 | Traffic Control Road Closed, Detour | 07/03/02 |
| | TC 8 | Traffic Control Lane Closure | 07/03/02 |
| | TC 9 | Traffic Control Multilane Closure | 07/03/02 |
| | TC 10 | Traffic Control Expressway And Freeway Crossover/Turn-Around | 07/03/02 |
| | TC 11 | Traffic Control Exit Ramp Gore | 07/03/02 |
| | TC 12 | Traffic Control Entrance Ramp Gore | 07/03/02 |
| | TC 13 | Traffic Control Shoulder-Haul Road | 07/03/02 |
| U | TC 14 | Traffic Control Flagging Operation | 07/03/02 |
| U | TC 15 | Traffic Control 2 Lane/ 2 Way Seal Coat With Cover Material | 07/03/02 |
| U | TC 16 | Traffic Control Pavement Marking | 07/03/02 |

XIV. Special Provisions

SPECIAL PROVISION

Project #SP-0134(3)0

SECTION 00725 M

SCOPE OF WORK

PART 1 GENERAL

1.2 INTENT OF CONTRACT

Modify Article 1.2 by adding the following:

- B. Project to provide an HMA Overlay from R.P. 0.0 - R.P. 11.30 on SR-134. Include all paved surfaces of the roadway on SR-134 within the limits listed in the Detailed Report. Construct new HMA curb match at the intersection of SR-134 and 3850 South at R.P. 0.25. Replace all pavement markings located throughout the entire project. Place new paint messages at all intersections and existing locations on SR-134.
- C. Schedule major work during off peak traffic periods and during school hours. No road closure will be allowed. Limit traffic delays to less than ten minutes. Peak traffic assumed to be from 7 AM to 8 AM and from 3 PM to 5 PM but hours may be modified by the Engineer. All traffic lanes to be open during non-working hours.
- D. Substantial completion within 30 working days.
- E. No work permitted on State recognized holidays or holiday weekends.
- F. Coordinate work with Weber County School District and Fremont High School before construction begins.

**SPECIAL PROVISION
SP-0134(3)0**

SECTION 01892

**RECONSTRUCT CATCH BASIN, CLEANOUT, METER,
VALVE, MANHOLE, AND MONUMENT BOXES**

PART 2 PRODUCTS

2.1 CONCRETE

Modify Section 2.1 A. by adding the following:

- 2.1 A.
1. Minimum 1450 psi within 12 hours and 2030 psi within 24 hours.
 2. Maximum water cement ratio 0.4.
 3. Minimum 740 lb/yd³ of cement.
 4. Add accelerators (excluding calcium chloride) or plasticizers as necessary to achieve quick set and strength.
 5. Add a minimum of 230 lb/yd³ of steel fiber to increase strength of mix. Poly-fibers may also be included in addition to steel if part of a standard mix design.
 6. Steel fiber to be cold drawn with deformed ends 1.2in - 2.4in in length and .02in - .04in in diameter. Minimum steel tensile strength of 120,000 PSI (ASTM 820).

PART 3 EXECUTION

3.1 RISE BOXES

Modify section 3.1 B by adding the following:

- 3.1 B.
1. Correctly reference all boxes prior to surfacing.
 2. Contact Qwest prior to reconstruction of Qwest manholes. Contact: Jeff Stapley, phone number (801) 974-8150.
 3. Reconstruct top section of cleanout box and catch basin using #5 Rebar to be tied to existing reinforcing steel with a minimum 6 in. overlap. The existing steel in the structure must be exposed to allow for the required overlap.
 4. Schedule work during non peak traffic hours.
 5. Begin adjustment work on only the number of boxes that can be completed in a 24-hour period. (including concrete set to 1450 psi when

raising boxes)

6. Notify appropriate utility companies prior to making any adjustments.
7. Contractor shall be responsible for removal of any debris that enters the manhole or catch basin.
8. Cooperate with utility company to allow access to manholes during construction process if necessary.
9. Consolidate concrete using a high frequency internal vibrator.
10. Remove traffic control devices as soon as possible after 1450 psi has been reached or at the direction of the engineer.
11. Use steel plates as needed to comply with traffic control limitations.

**SPECIAL PROVISION
SP-0134(3)0**

SECTION 02721 M

UNTREATED BASE COURSE

PART 2 PRODUCTS

2.1 AGGREGATES

Replace Section 2.1 tables 3 and 4 with the following:

Table 3

| Aggregate Properties | | |
|------------------------------|--------------------------------------|----------------------------|
| Dry Rodded Unit Weight | Not less than 75 lbs/ft ³ | AASHTO T 19 |
| Material Passing No.40 Sieve | P. I. 0 to 8 | AASHTO T 90 |
| Aggregate Wear | Not to exceed 50 percent. | AASHTO T 96 |
| Dry Weight Values | Within bands shown in Table 4 | |
| Gradation Limits | Table 4 | AASHTO T 11 AASHTO T 27 |

Table 4

| Gradation Limits - Single Value Job-Mix Formula | | | |
|--|--|---------|----------|
| Sieve Size | Percent Passing of Total Aggregate (Dry Weight) | | |
| | 1-1/2 inch | 1 inch | 3/4 inch |
| 1-1/2 inch | 100 | -- | -- |
| 1 inch | -- | 100 | -- |
| 3/4 inch | 81 - 91 | -- | 100 |
| 1/2 inch | 67 - 77 | 79 - 91 | -- |
| 3/8 inch | -- | -- | 78 - 92 |
| No. 4 | 43 - 53 | 49 - 61 | 55 - 67 |
| No. 16 | 23 - 29 | 27 - 35 | 28 - 38 |
| No. 200 | 6 - 14 | 7 - 14 | 7 - 14 |

Untreated Base Course: Based on fine and coarse aggregate having approximately the same bulk specific gravities.

PART 3 EXECUTION

3.2 INSTALLATION

Delete subsection 3.2 C and replace with the following:

- C. Maintain the optimum moisture content ± 2 percent at the time of compaction. AASHTO T 180, Method D. Untreated base course for shoulder dressing will be accepted on a basis of visual inspection and will require a minimum of two roller passes. Use a hand vibratory compactor around obstacles. Approval from the engineer in writing will be required for deviation from this subsection.

**SPECIAL PROVISION
PROJECT #SP-0134(3)0**

SECTION 02742S

PROJECT SPECIFIC SURFACING REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Required PG Asphalt or emulsion.
- B. Number of gyrations to use for Superpave Mix Design.

PART 2 PRODUCTS

2.1 MIXES

- A. Hot Mix Asphalt (HMA): (Refer to bid item for size)
 - 1. PG 64-34 Asphalt.
 - 2. N_{initial} 8 N_{design} 100 N_{final} 160
- B. Open-Graded Surface Course:
 - 1. PG N/A Asphalt.
- C. Chip Seal
 - 1. Type of asphalt emulsion N/A

PART 3 EXECUTION Not used.

END OF SECTION

**SPECIAL PROVISION
PROJECT # SP-0134(3)0**

SECTION 02765S

PAVEMENT MARKING PAINT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Furnish Acrylic Water Based pavement marking paint meeting Federal Specification TTP-1952 D and refer to 2.2 for resin requirement.
- B. Apply to hot mix asphalt or Portland cement as edge lines, center lines, broken lines, guide lines, contrast lines, symbols and other related markings.
- C. Remove pavement markings.

1.2 REFERENCES

- A. AASHTO M 247: Glass Beads Used in Traffic Paint.
- B. ASTM D 562: Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using the Stormer-Type Viscometer.
- C. ASTM E 1347: Color and Color-Difference Measurement by Tristimulus Colorimetry.
- D. ASTM D 2205: Selection of Tests for Traffic Paints.
- E. ASTM D 2743: Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.
- F. ASTM D 2805: Hiding Power of Paints by Reflectometry.
- G. ASTM D 3723: Pigment Content of Water-Emulsion Paints.
- H. ASTM D 3960: Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- I. ASTM D 4451: Pigment Content of Paints.

- J. ASTM D 5381: X-Ray Fluorescence (XRF) Spectroscopy of Pigments and Extenders.
- K. Federal Standards 595B, 37875, 33538, 11105 and TTP-1952 D.

1.3 ACCEPTANCE

- A. Provide fixtures (ball valves, gate valves or other) on paint truck for the purposes of obtaining field samples.
- B. Agitate the paint to allow for thorough mixing. Follow paint manufacturer's recommendation for agitation and mixing times.
- C. Stop all agitation before sample is drawn.
- D. All meters on the paint truck must be calibrated annually and certified for application rate verification. Calibration tolerances for meters must be +/- 0.5 pounds per gallon. Keep a clean, legible copy of calibration report with the paint truck. Certifications performed by company personnel, meter calibration companies or UDOT Equipment Certification Unit.
- E. UDOT ENGINEER:
 - 1. Visually inspects each line to verify bead adhesion and compliance with specified line dimensions requirements.
 - 2. Verifies that the paint and beads are being applied within specified tolerances a minimum of once each production day.
 - 3. Verifies quantities used by either method:
 - a. Measuring both paint and bead tanks prior to and after application.
 - b. Witnessing the meter readings prior to and after application.
 - 4. Randomly sample each color of pavement marking paint used, minimum of one sample each per project.
 - a. Use a clean one pint metal paint can.
 - b. Sample paint immediately after the paint has been completely agitated. (Stop all agitation before drawing the sample)
 - c. Allow a minimum of 10 gallons to be applied prior to taking sample.
 - d. Fill the sample container to within ½ inch of full.
 - e. Seal the containers immediately by tightly attaching the container's lid.
 - f. Submit paint samples to Central Chemistry Lab for acceptance.
 - g. For each sample include:
 - Project Number
 - Project Name
 - Paint Manufacturer
 - Batch Number

- Striping Company
- Color of Paint
- Est. Quantity
- Date Sampled
- Sampler's name

- F. Repaint any line or symbol failing to meet bead adherence and dimensional requirements.
- G. Price Reductions for Pavement Markings installed below the specified wet mil thickness are outlined in Table I.
- H. Contractor will repaint pavement markings that fail to meet the quantitative requirements of Article 2.2 Paint, at no cost to the Department.

| Table I - Price Reduction for Wet Mil Thickness | |
|--|---------------------------|
| | Pay Factor |
| At the specified mil thickness | 1.00 |
| 1-10 percent below the Specified wet mil thickness | 0.75 |
| 11-15 percent below the Specified wet mil thickness | 0.50 |
| More than 15 percent below the Specified wet mil thickness | Repaint Pavement Markings |

PART 2 PRODUCTS

2.1 Manufacturers

- A. Select an acrylic water based pavement marking paint manufacturer from the Accepted Products Listing (APL) maintained by the UDOT Research Division.

2.2 Paint

- A. Follow Federal Standards 595B, 37875, 33538, and 11105. Meet the following quantitative requirements for Acrylic Water Based Paint listed in Table II:

| Table II - Quantitative Requirements | | | | |
|--|---------------|--------------------------|---------------|-------------|
| Property | White | Yellow (lead free) | Black | Test |
| Pigment: Percent by weight | 62.0 +/- 2 | 62.0 +/- 2 | 62.0 +/- 2 | ASTM D 3723 |
| Total Solids: Percent by weight, minimum | 77.0 | 77.0 | 77.0 | ASTM D 2205 |
| Nonvolatile vehicle: Percent by weight vehicle, minimum* | 40.0 | 40.0 | 40.0 | ASTM D 2205 |
| Viscosity, KU @ 77 degrees F | 80 - 95 | 80 - 95 | 80 - 95 | ASTM D 562 |
| Volatile Organic Content(VOC): lbs/gal, maximum | 1.25 | 1.25 | 1.25 | ASTM D 3960 |
| Directional Reflectance: Minimum | 92.0 | 50.0 | N/A | ASTM E 1347 |
| Dry Opacity: Minimum (5 mils wet) | 0.95 | 0.95 | N/A | ASTM D 2805 |

* The binder shall be 100 percent acrylic, a minimum of 40 percent, by weight, as determined by infrared analysis and other chemical analysis available to UDOT (ASTM D 2205). Consisting of either Rohm and Haas Fastrack HD- 21A or Dow DT-400NA.

- B. Additional requirements:
1. Free of lead, chromium, or other related heavy metals ASTM D 5381.
 2. ASTM D 2743, ASTM D 4451 and ASTM D 5381: Tests used to verify paint samples meet "Accepted Products Listing."

2.3 GLASS SPHERE (BEADS) USED IN PAVEMENT MARKING PAINT

- A. Specific Properties: Meet AASHTO M 247.
 - 1. Gradation:

| | |
|---------------------------------|----------|
| Passing a No. 14 sieve, percent | 95 - 100 |
| Passing a No. 16 sieve, percent | 80 - 95 |
| Passing a No. 18 sieve, percent | 10 - 40 |
| Passing a No. 20 sieve, percent | 0 - 5 |
| Passing a No. 25 sieve, percent | 0 - 2 |
 - 2. Beads having a Silane adhesion coating.
 - 3. Roundness - The glass beads will have a minimum of 80 percent true spheres.
- B. Beads used in Temporary Pavement Markings meet AASHTO M247 Type II uniform gradation.

PART 3 EXECUTION

3.1 PREPARATION

- A. Line Control.
 - 1. Establish control points at 100 ft intervals on tangent and at 50 ft intervals on curves.
 - 2. Maintain the line within 2 inches of the established control points and mark the roadway between control points as needed.
 - a. Remove paint that is not placed within tolerance of the established control points and replace at no expense to the Department. Refer to article 3.4.
 - b. Maintain the line dimension within 10 percent of the width and length dimensions defined in Standard Drawings ST1 - ST8.
- B. Remove dirt, loose aggregate and other foreign material and follow manufacturer's recommendations for surface preparation.

3.2 APPLICATION

- A. Apply Pavement marking paint at the following Wet mil thickness requirements.
1. 20 – 25 wet mils for all markings.

Example Calculation: (Verify wet mil thickness)

$$\text{Wet Mils} = \frac{(0.133681 \text{ ft}^3/\text{gal}) * 12000 \text{ mil/ft}}{(X \text{ ft/gal})(Z \text{ ft})}$$

Where,

X = application rate. (Meter readings or dipping tanks).

Z = line width measured in feet.

12000 = conversion from ft to mil

0.133681 = conversion from gallons to cubic feet.

For information only: Approximate application rate for required mil thickness requirements.

1. 4 inch Solid Line: From 190 to 240 ft/gal
 2. 4 inch Broken Line: From 760 to 960 ft/gal
 3. 8 inch Solid Line: From 95 to 120 ft/gal
- B. Refer to Table I for pavement markings that are less than 20 wet mils in thickness.
- C. No additional payment for pavement markings placed in excess of 25 wet mils in thickness or exceeding dimensional requirements outlined in Article 3.1 paragraph A.
- D. Painted Legends and Symbols 1 gallon per 80 square feet. Provide Engineer calculations of legends and symbols for pay determination.
- E. Glass Sphere (Beads): Apply a minimum of 8 lbs/gal of paint, the full length and width of line and pavement markings.
1. Do not apply glass beads to contrast lines (black paint).
- F. Begin striping operations no later than 24 hours after ordered by the Engineer.
- G. At time of application apply lines and pavement markings only when the air and pavement temperature are:
1. 50 degrees F and rising for Acrylic Water Based Paint.
- H. Comply with Traffic Control Drawing TC-16

3.3 CONTRACTOR QUALITY CONTROL

- A. Application Rate: Verify that the paint and beads are being applied within specified tolerances prior to striping.
- B. Curing: Protect the markings until dry or cured. In the event that the uncured marking is damaged the marking will be reapplied and track marks left on the pavement will be removed at no additional cost to the Department.

3.4 REMOVE PAVEMENT MARKINGS

- A. Use one of these removal methods:
 - 1. Grinding
 - 2. High pressure water spray
 - 3. Sand blasting
 - 4. Shot blasting.
- B. Do not eliminate or obscure existing striping, in lieu of removal, by covering with black paint or any other covering material.
- C. Use equipment specifically designed for removal of pavement marking material.

END OF SECTION